ALTO®

CLARKE TECHNOLOGY

ENCORE S20E

Section II

Parts and Service Manual

Order Parts Here:

IVIE Enterprises, Inc.
www.ivie-ent.com/parts
Ph:(918)254-5161

(74839B)

HOW TO CORRECT PROBLEMS IN THE MACHINE

PROBLEM	CAUSE	ACTION
There is no solution flow.	The solution valve is closed.	Open the solution valve.
	There is an obstruction in the solution hose or filter.	Remove the obstruction from the hose and the filter.
	The solution valve or electric wiring is damaged.	Repair or replace the valve and the electric wiring.
	The solution tank is empty.	Fill the solution tank.
	The solution module is damaged.	Check solution module
The solution flow does not stop.	The solution valve is open or dirty.	Close or Clean the solution valve.
	The solution valve or wiring is damaged.	Repair or replace the valve and the wiring.
	The solution valve is dirty	Clean the solution valve.
	There is a damaged seat and washer in the solution valve.	Replace the seat and washer.
	The solution module is damaged.	Check solution module.
The machine does not remove all the water from the floor.	The squeegee is up	Lower the squeegee.
	The squeegee tilt is not correct.	(See Figure 11, page 23)
	The vacuum tank is full.	Drain the tank.
	The screen filter is dirty.	Clean the screen filter.
	There is an obstruction or damage in the squeegee, squeegee hose or standpipe.	Remove the obstruction or repair the damage.
	The vacuum motor is not running.	Check for tripped breaker. Have an authorized service person make repairs.
	The squeegee hose is disconnected, or damaged	Check and connect hose.
	The squeegee blade is damaged, worn, or incorrectly installed.	Turn or replace the squeegee blade. Correctly install the squeegee blade.
	The squeegee pressure is not correctly adjusted.	Adjust the pressure of the squeegee.
	The gaskets on the cover of the recovery tank are damaged.	Replace the gaskets.
	The recovery tank lid is on wrong.	Rotate lid 180° and replace.

PROBLEM	CAUSE	ACTION
The cleaning is not even.	The scrub brush or pad is worn.	Replace the scrub brush or pad.
	There is damage to the brush assembly, caster or the solution valve.	Have an authorized service person make the needed repairs.
	The brush motor is not running	Check for tripped breaker. Reset. Check for loose connections.
	The solution level is low.	Fill the solution tank. NOTE: If the problem continues consult an authorized service person.
The machine does not run.	The machine loses power	Reset the circuit breaker. Do not use an extension cord.
	Main switch is off.	Turn main switch on.
	Power cord disconnected.	Reconnect power cord.
	Wall circuit breaker blown.	Reset wall circuit breaker.

MAINTENANCE

DANGER: **Maintenance and repairs performed by unauthorized personnel could result in damage or injury. Maintenance and repairs must be done by authorized Clarke Technology personnel only.**

DANGER: **Operating a machine that is not completely or fully assembled could result in injury or property damage. Do not operate this machine until it is completely assembled. Inspect the machine carefully before operation. Keep all fasteners tight.**

DANGER: **Electrocution could occur if maintenance and repairs are performed on a unit that is not properly disconnected form the power source. Always disconnect the power supply before attempting any maintenance or service.**

WARNING: **Severe injury could occur to your hands if maintenance or repairs are performed when the machine is on or plugged into power supply. Always turn off power and disconnect machine before attempting any maintenance.**

WARNING: **SEVERE bodily injury could occur if operator leans body under the tank support to perform maintenance. Always position the tank support all the way over and rest it on the floor before attempting any service and/ or maintenance.**

WARNING: **Moving parts can cause injury to feet and hands. Keep feet and hands clear from under the machine.**

WARNING: **Attempting maintenance and or repairs to this machine before emptying the solution or recovery tank could result in machine or property damage.**

WARNING: **Keep all fasteners tight.**

MAINTENANCE

Do These Procedures When You Begin Your Work Period

NOTE: Always engage the parking brake (if equipped) before servicing the machine.

Keep the machine clean. It will need fewer repairs and have a longer life.

1. Connect machine power cord to electrical outlet.

2. Make sure the recovery tank lid is on correctly. See figure 1.

3. Make sure the Screen filter over the vacuum motor is clean and in position. See figure 1 (a)

4. Make sure the valves on the drain hoses are clean. Tightly close the valves.

5. Make sure brush housing and skirt are in position on the brush head.

6. Make sure the brush is in position and installed correctly

7. Check the installation of the squeegee and squeegee hose.

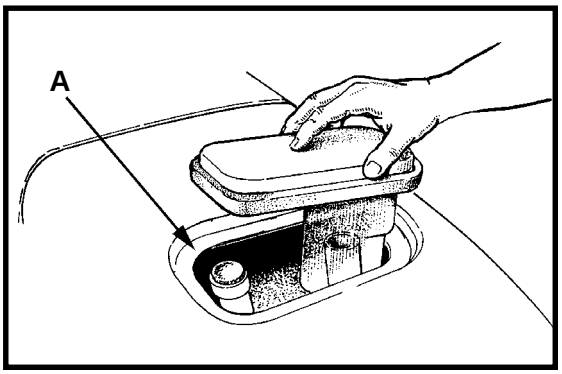


Figure 1

MAINTENANCE

Do These Procedures When You End Your Work

NOTE: Always engage the parking brake (if equipped) before servicing the machine.

1. Drain the solution tank (Figure 2) and the recovery tank (Figure 3). To drain the tanks , follow this procedure:

   a. Turn the main switch "OFF".

   b. Remove the drain hose from the back of the machine.

   c. Put the end of the hose over a drain or bucket.

   d. Turn the valve handle to the left. Pull the handle out to open the drain. (Figure 4)

NOTE: Have the opening in the side of the valve away from you when you open the valve.

   e. To open the valve completely, turn the handle to the right. Pull the handle out of valve. (Figure 5)

2. Flush the tanks. To flush the tanks, put clean water in the tank through the opening on top of the tank.

CAUTION: Make sure water or solution does not enter the opening for the vacuum motor. See figure 1, page15.

3. If a tank or drain hose has an obstruction, use a high pressure water hose to flush the tank or hose. Put the water hose into the drain hose.

4. Leave the tanks and the drain valves open to dry in the air.

5. Check the squeegee blade. Use a cloth to clean the squeegee blade. If the squeegee blade is damaged or worn, turn or replace the blade.

6. Check and clean the solution lid gasket. Use a mild cleaning solution and rinse the parts in clean water.

Use a clean cloth and wipe the surface of the machine.

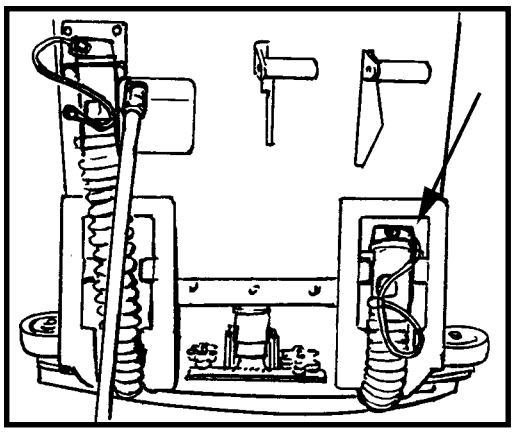


Figure 2

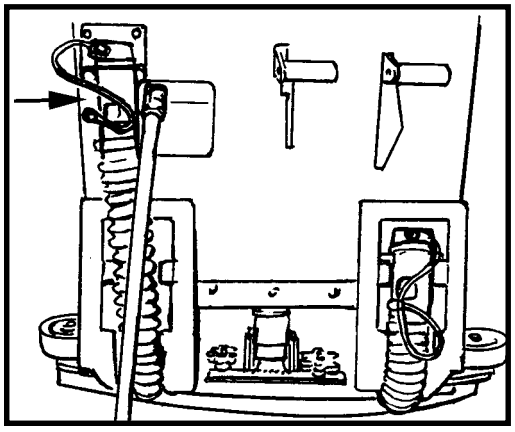


Figure 3

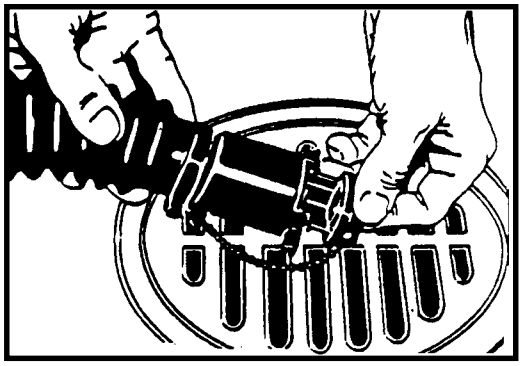


Figure 4

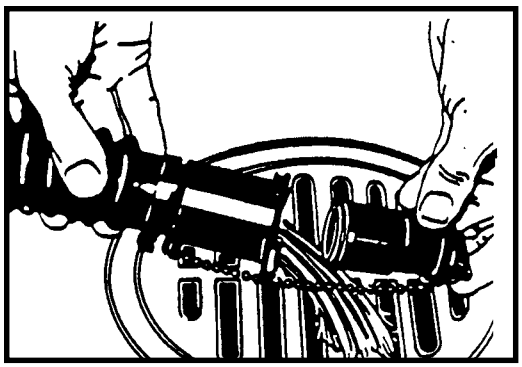


Figure 5

These Maintenance Procedures Must Be Done Every Week:

WARNING: Maintenance and repairs must be done by authorized personnel only. Always empty the solution tank and the recovery tank before doing any maintenance. Keep all fasteners tight.

1. Check the hoses for leaks, obstructions and other damages.

2. Check and clean the filter screen in the solution hose. To clean the screen, follow this procedure: (See figures 11 and 12 page 18)

   a. Turn the connector to the left.

   b. Remove and clean the filter screen.

   c. Install the filter screen in the hose. Turn the connector to the right to connect the hose.

3. Use a grease gun to lubricate the caster. See figure 6.

4. Check the squeegee and the scrub brush or the pad driver for damage.

5. Check the squeegee and the vacuum hose for damage, leaks and obstructions.

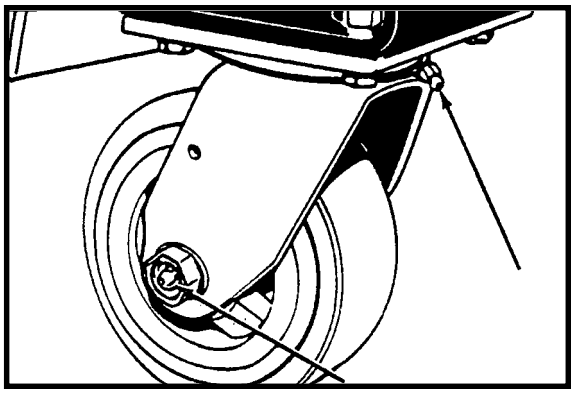


Figure 6

Maintenance For The Squeegee

To remove the squeegee, follow this procedure:

1. Remove the squeegee assembly by loosening the two knobs that attach the squeegee to the machine. Pull the squeegee assembly off. See figure 7.

2. Inspect the squeegee blade.

3. If the blade is worn, turn the blade so that a new edge is in the wiping position.

4. Reinstall squeegee assembly on the machine.

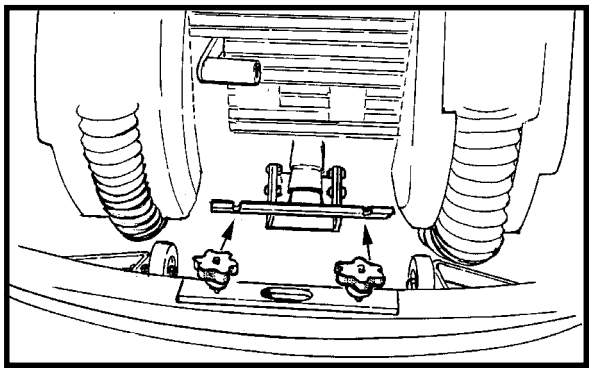


Figure 7

How To Adjust The Squeegee

The following adjustments are set at the factory, however they may require slight adjustment.

Adjusting Squeegee Pressure:
To adjust the pressure, refer to Figure 8. Proper adjustment will produce a uniform flare along the rear blade when the machine is moved forward. To increase pressure, loosen bolt and slide squeegee mount down. To decrease the pressure, loosen the bolt and slide squeegee mount up.

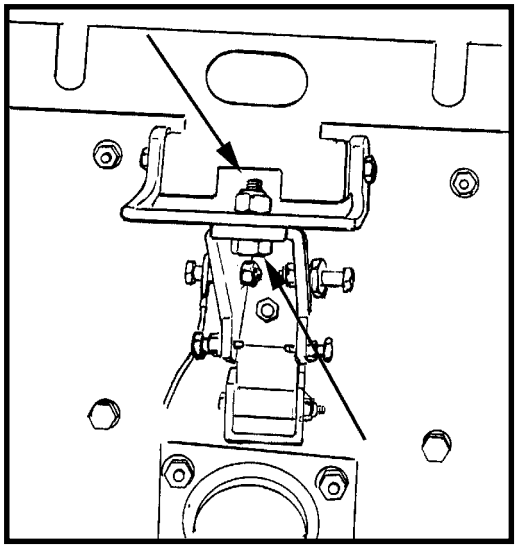


Figure 8

How To Adjust The Squeegee cont.

Adjusting Squeegee Tilt:
The tilt of the squeegee causes the rear blade to raise up in the center or on the ends, depending on which direction the tilt is changed. For tilt adjustment, refer to figure 9. Loosen left and right screw "X". In order to bring the rear blade down in the center, tip "Y" down. To bring both ends down, tip "Y" up. Make very small adjustments and try it until a uniform flare is achieved. Changing the tilt may also require readjusting the squeegee pressure.

Adjusting Squeegee Blades:
When properly installed the front blade should be approximately .06 above the rear blade. See figure 10.

Adjusting Squeegee Support Wheels:
The support wheels should be set at .12 above the floor with the rear blade touching the floor. See figure 10.

WARNING: Maintenance and repairs must be done by authorized personnel only .

WARNING: Electrical repairs must be done by authorized personnel only.

Consult your Clarke Technology Authorized Service Person to do the service procedures.

Use only genuine Clarke Technology parts.

How to Clean the Solution Line

If the solution line becomes clogged, follow this procedure:

1. Turn key switch "OFF" and remove the key.
2. Open brush motor cover and remove brush housing.
3. Remove brushes/pads.
4. Locate the solution shut-off valve. It is located behind the left wheel.
5. Turn solution valve "OFF". See figure 12 (A).
6. Locate the solution filter screen. It is located on the back of the solution valve. See figure 12 (B).
7. Unscrew the female garden hose connector from the back of the solution valve. The filter screen is in the female connector.
8. Remove the filter screen. See figure 11.
9. Clean and replace screen.
10. Attach the female garden hose connector to the solution valve.
11. Turn solution valve to "ON".

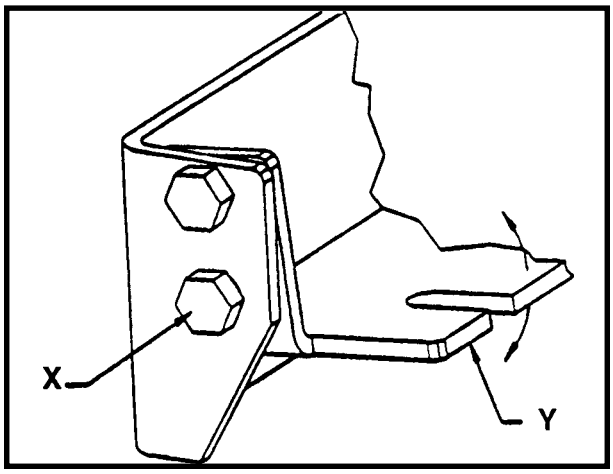


Figure 9

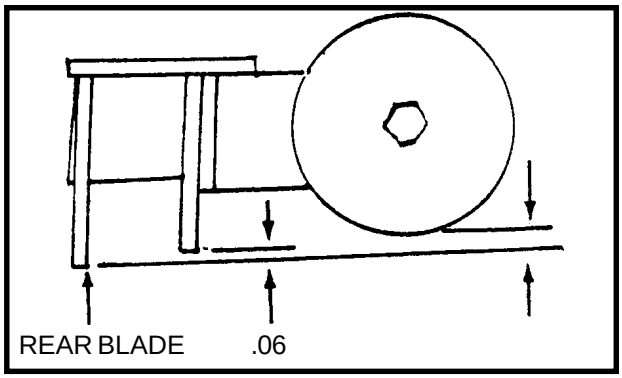


Figure 10

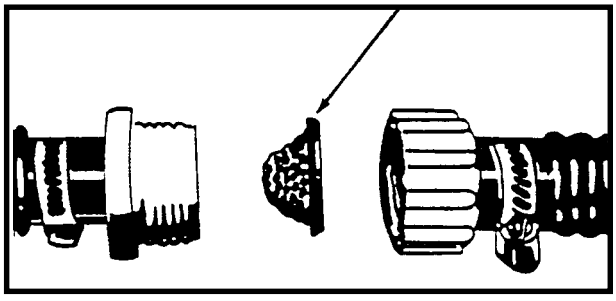


Figure 11

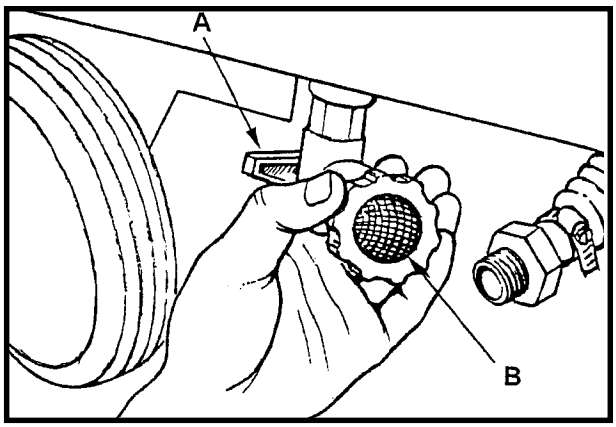


Figure 12

MAINTENANCE

NOTE: ONLY AUTHORIZED TRAINED PERSONNEL DO THE FOLLOWING:
How to replace float switch, check ballast tanks, and vacuum motor. (See Figure 13)

1. Remove the power cord from wall outlet.
2. Open the recovery tank/solution fill lid.
3. Using a Phillips screw driver, remove the retainer and the screw.
4. Perform the maintenance required.
5. Close recovery tank and reinstall latch and screw.

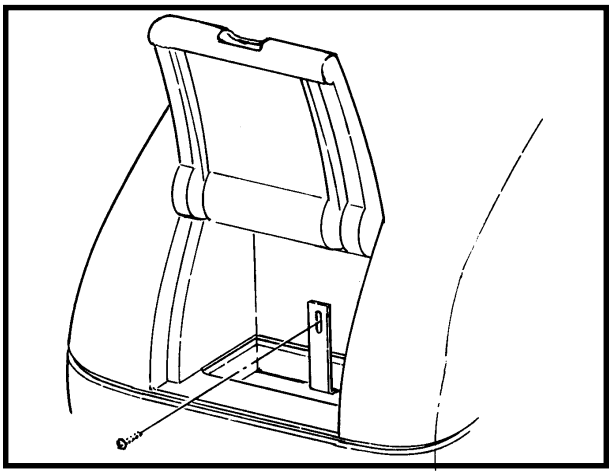


Figure 13

Encore S20E 7/00
Machine Variables and Accessories

115 Volt	**00901A**	*Breakdown:*	00900A	Encore S20E 115V Base Machine
			51447D	20" Polypropylene Brush
	00902A	*Breakdown:*	00900A	Encore S20E 115V Base Machine
			51453D	Pad Driver
230 Volt	**00911A**	*Breakdown:*	00910A	Encore S20E 230V Base Machine
			51447D	20" Polypropylene Brush
	00912A	*Breakdown:*	00910A	Encore S20e 230V Base Machine
			51453D	Pad Driver

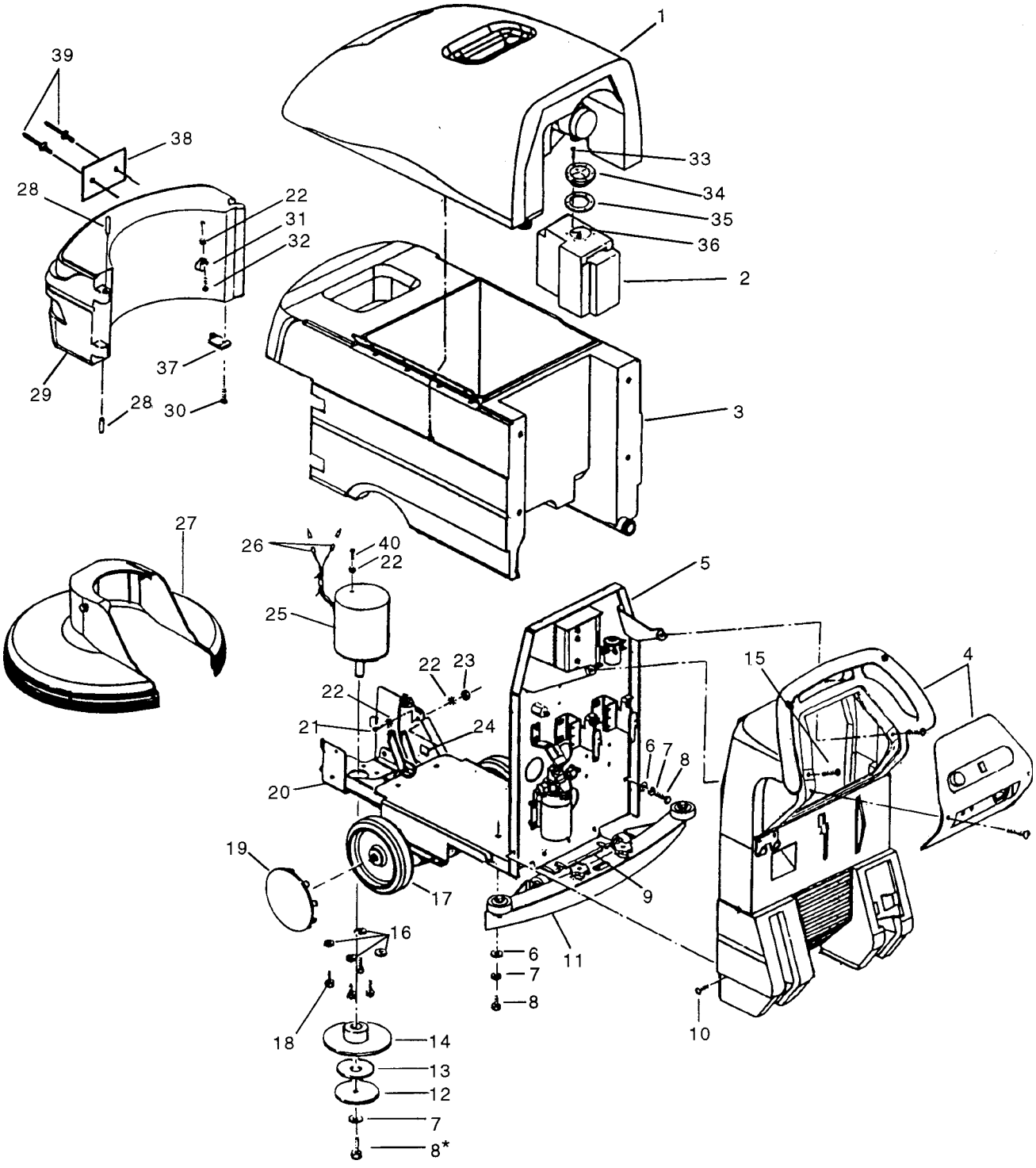
Accessories

Description	Part No.
Pad Driver, Dual Direction	51453D
Base	57370A
Retainer	57369A
Pad/Brush Clutch Plate	66649A
Spacer	58531A
Clutch Plate Screws	962819
Clutch Plate Nuts	80084A
Pad/Brush Clutch Plate Dual	30033A
Spacer	58530A
Poly Brush Dual Direction (general scrub)	51447D
Nylon Brush .016 Dual Direction (general scrub)	51482D
Clarke Technology Care Kit	14607A
Hour Meter Kit	10656A
29" Squeegee Kit	18820A
32" Squeegee Kit	18821A
Polydur, Protectant	50478A
Kit, Grease Gun	55420A
Brake, Option	10635A

Pads by Case

Color	20"
Yellow (Polish)	979199
White (Polish)	976067
Red, (Light Scrub)	976068
Green, (Light Scrub)	976169
Blue, (Heavy Duty Scrub)	976069
Brown, (Stripper)	976070
Black, (Stripper)	976170

CLARKE TECHNOLOGY
Encore S20E
Final Assembly Drawing 7/00

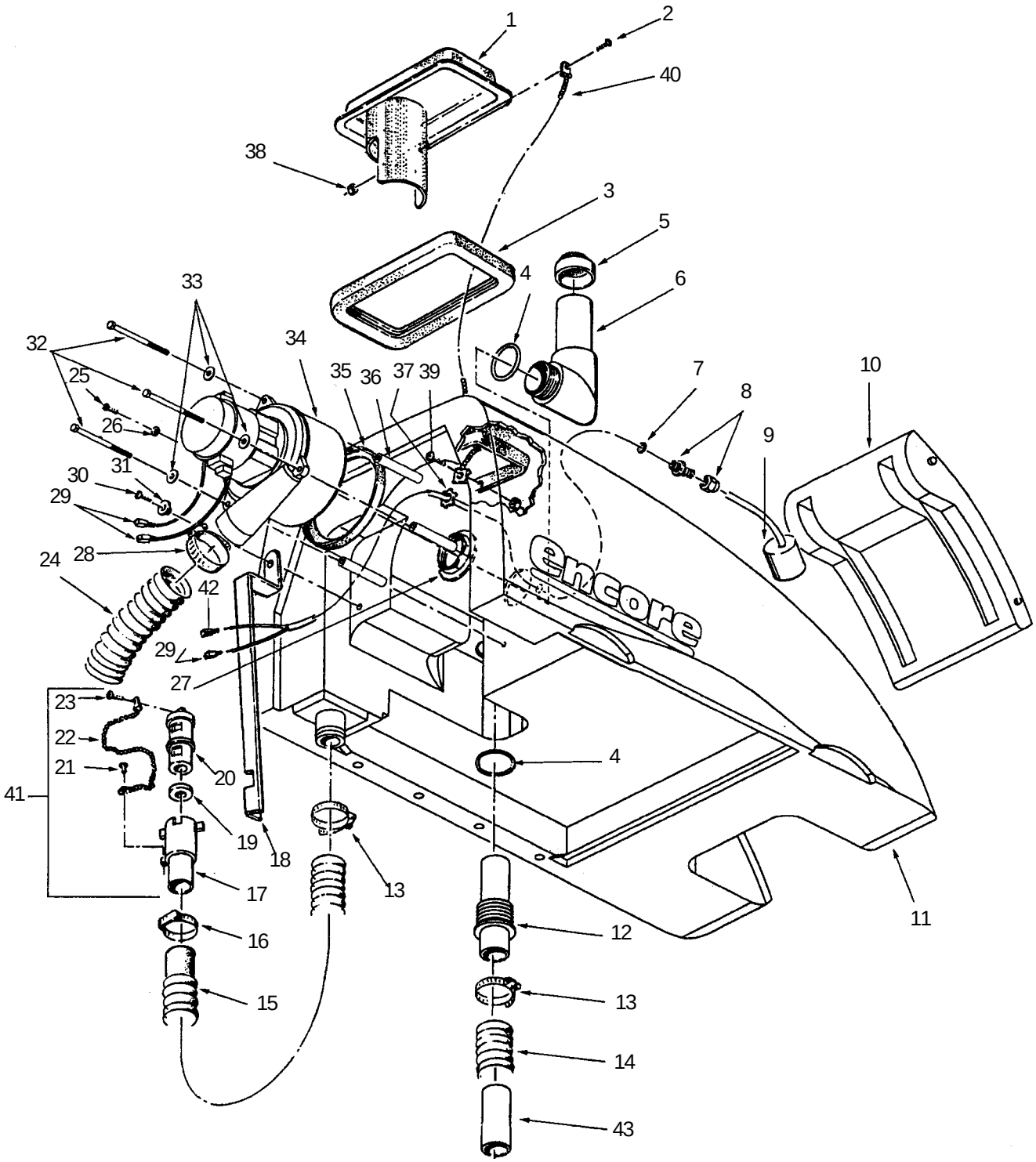


*Recommended 12 foot pounds torque, also add blue loctite.

CLARKE TECHNOLOGY
Encore S20E
Final Assembly Parts List 7/00

Ref #	Part No.	Description	115V Qty.	230V Qty.
1	See Pg 24	Tank Asm., Recovery	Ref.	Ref.
2	38817A	Tank, Ballast	2	2
3	See Pg 26	Tank Asm., Solution	Ref.	Ref.
4	See Pg 30	Cover Asm., Electrical	Ref.	Ref.
5	See Pg 28	Panel Asm., Rear	Ref.	Ref.
6	980651	Washer, Flat, 5/16	8	8
7	980652	Washer, Lock, 5/16	9	9
8	85811A	Screw, 5/16-18 x 3/4	9	9
9	See Pg 31	Lift Asm., Squeegee	Ref.	Ref.
10	85518A	Screw	6	6
11	See Pg 32	Squeegee Asm.	Ref.	Ref.
12	980210	Washer, Impeller	1	1
13	980679	Washer, Spacer, 3/16 x 1½ x 1/8	1	1
14	20308A	Adaptor, Motor	1	1
15	85518A	Screw	2	2
16	980638	Washer, Lock, 3/8	4	4
17	See Pg 33	Axle Asm.	Ref.	Ref.
18	85727A	Screw, 3/8-16 x 1.0	4	4
19	34711B	Hub Cap	2	2
20	See Pg 34	Lift Asm., Brush	Ref.	Ref.
21	962109	Screw	1	2
22	980603	Washer, Star	3	2
23	81110A	Nut	1	-
24	77094A	Label, Ground	1	1
25	44713A	Motor, Brush	1	-
	44711B	Motor, Brush	-	1
26	47710A	Terminal	2	2
27	See Pg 35	Housing Asm., Brush	Ref.	Ref.
28	36902A	Pins, Nylon	2	2
29	32403B	Cover, Front	1	1
30	85398A	Screw, ¼-20 x ½	1	1
31	872102	Nylon Clip	1	1
32	85903A	Screw	1	1
33	84245A	Screw, 8-32 x 3/4 Flat	12	12
34	55673A	Lid, Gasket Tank	2	2
35	34291A	Gasket	2	2
36	81109A	Nut, 8-32 ESNA S.S.	12	12
37	65505A	Latch, Motor Cover	1	1
38	70166A	Plate, I.D. (20E)	1	1
39	83010A	Rivet	2	2
40	85832A	Screw, 10-32 x 3/8	-	1
Nl	See Pg 21	Brush or Pad Drivers	1	1
Nl	See Pg 36	Parking Brake (Standard on 00900E and on 00910E)	1	1

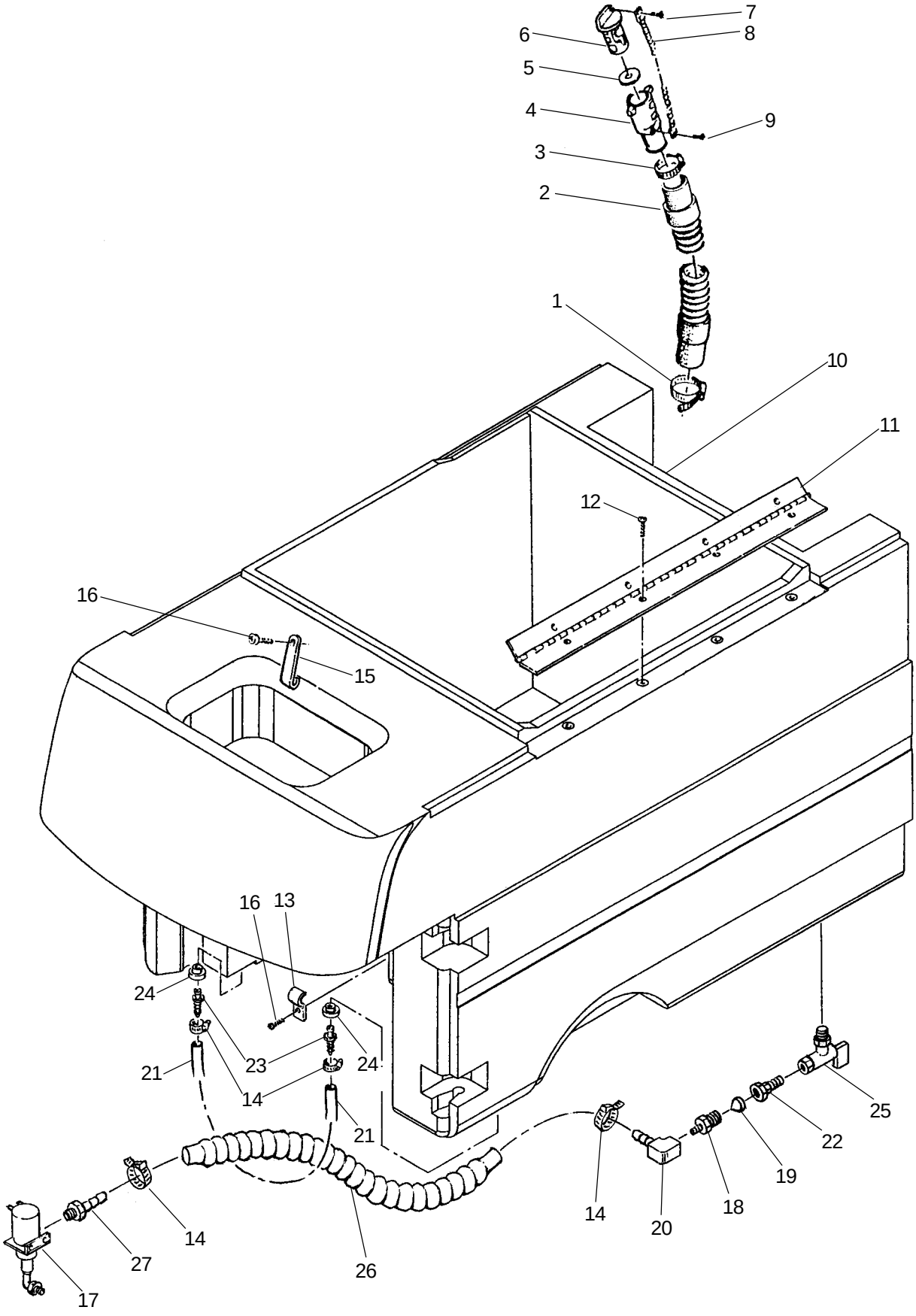
CLARKE TECHNOLOGY
Encore S20E
Recovery Tank Assembly Drawing 4/01
Drawing



CLARKE TECHNOLOGY
Encore S20E
Recovery Tank Assembly Parts List 4/01
Drawing #18121A - 115V
Drawing #18122A - 230V

Ref #	Part No.	Description	115V Qty.	230V Qty.
1	36209A	Lid	1	1
2	962798	Screw, 10-24 x ½ Pan	1	1
3	34256A	Gasket, Lid	1	1
4	837304	O-Ring	2	2
5	58069A	Strainer	1	1
6	39336A	Tube, Stand	1	1
7	59877A	Seal, Washer	1	1
8	56459A	Relief, Strain	1	1
9	47364B	Switch, Float (7,8,29,37 not included)	1	1
10	32401B	Lid, Fill, Solution	1	1
11	38811B	Tank, Recovery	1	1
12	30132A	Tube, Stand	1	1
13	752020	Clamp, Hose	2	2
14	824103	Hose, Squeegee	1	1
15	30443A	Hose, Drain	1	1
16	832002	Clamp	1	1
17	839401	Valve, Drain	1	1
18	65503A	Latch, Recovery	1	1
19	833407	Gasket, Drain	1	1
20	833901	Drain Valve Handle	1	1
21	962943	Screw, 8-18 x ½ PN	1	1
22	52206A	Chain	1	1
23	962987	Screw, 10-24 x 3/8 Pan	1	1
24	674110	Hose	1	1
25	962546	Screw 10-24 x ½ Pan	1	1
26	980603	Washer, Star	1	1
27	920797	Nut	1	1
28	872010	Clamp, Hose	1	1
29	47905A	Terminal	3	3
30	962986	Screw, 5/16-18 x 3/4	1	1
31	87621A	Washer, Shoulder Nylon	1	1
32	962950	Screw, ¼-20 x 3 Hex	3	3
33	87026A	Washer, Flat, ¼	3	3
34	44906A	Motor, Vac 120V	1	-
	44907A	Motor, Vac 230V	-	1
35	643418	Gasket	1	1
36	58534A	Spacer	3	3
37	82100A	Nut, Lock	1	1
38	81110A	Nut, 10-24 ESNA	1	1
39	85519A	Screw	1	1
40	692409	Chain	1	1
41	839410	Valve Asm. (includes Item#17,19, 20, 21, 22, 23)	1	1
42	47711A	Terminal, ¼ FIFQD 16/14	1	1
43	52337A	Sleeve, Hose	1	1

CLARKE TECHNOLOGY
Encore S20E
Solution Tank Assembly Drawing 6/01

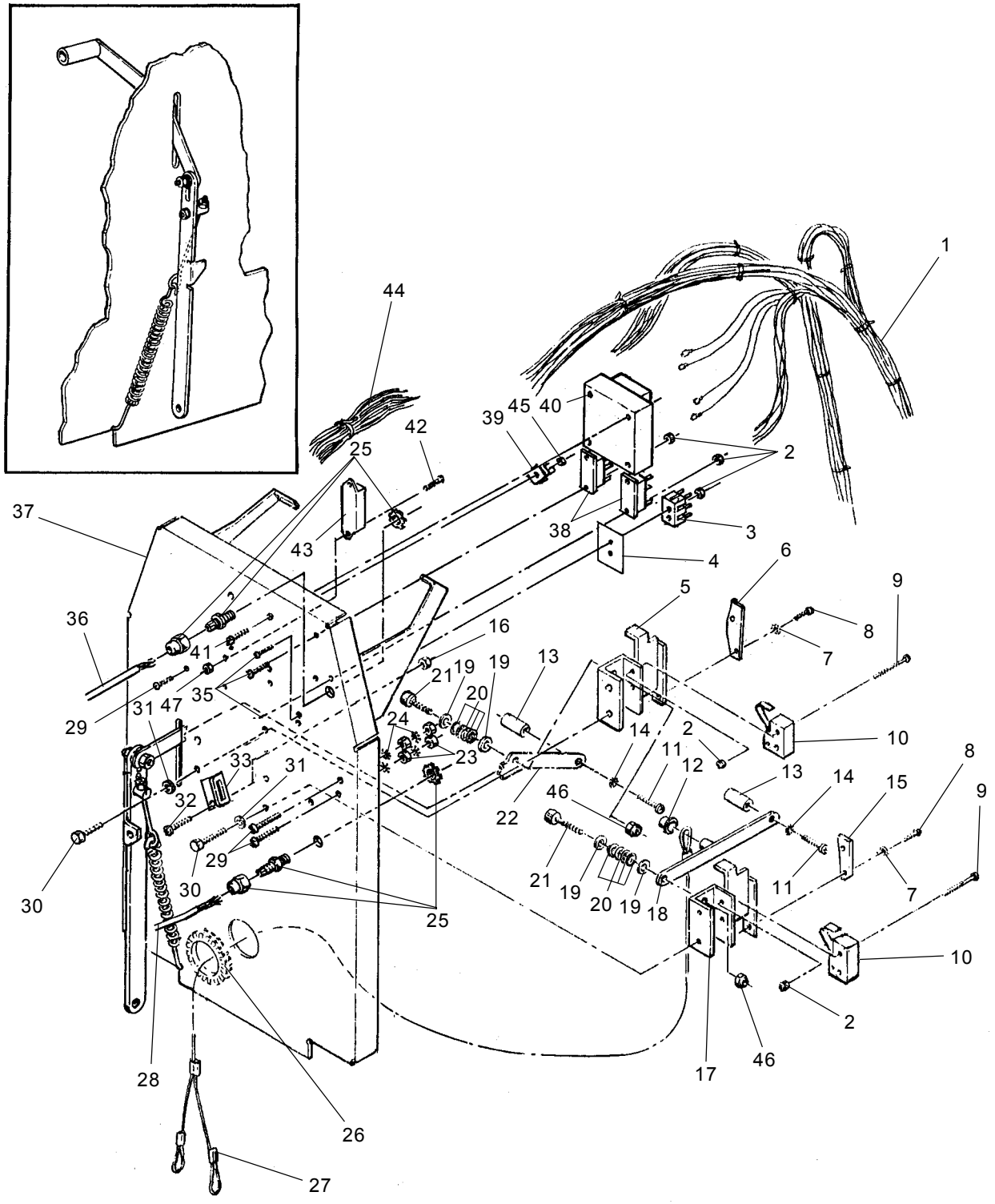


CLARKE TECHNOLOGY
Encore S20E
Solution Tank Assembly Parts List 6/01

Ref #	Part No.	Description	Qty.
1	752020	Clamp	1
2	30442A	Hose, Drain	1
3	832002	Clamp	1
4	839401	Valve, Drain	1
5	833407	Gasket, Drain	1
6	833901	Drain Valve Handle	1
7	962987	Screw, 10-24 x 3/6	1
8	52206A	Chain	1
9	962943	Screw, 8-18 x ½ PN	1
10	38810B	Tank, Solution	1
11	64517A	Hinge, Solution/Recovery	1
12	85398A	Screw, ¼-20 x 5/8	4
13	782002	Clamp	1
14	50248A	Clamp, Hose	4
15	66989A	Latch, Retainer	1
16	84237A	Screw, 10-32 x ½	2
17	59610A	Valve, Flow, Electric (includes following)	1
	50389A	Plunger	1
	50390A	Spring	1
	50391A	Diaphragm, PTFE Vitron	1
18	30131A	Adaptor, Hose	1
19	83517A	Filter, Screen, Medium	1
	198078	Filter, Screen, Fine **(Optional)**	1
20◆	53617A	Elbow, 3/8 x ¼ NPT Hosebarb	1
21◆	30172A	Hose, Braided, .375 ID x 16½"	2
22◆	51205A	Adapter, Female	1
23	52414A	Connector Straight Hose/Tank	2
24	51518A	Bushing	2
25◆	51204A	Valve, Solution Shut-OFF	1
26◆	35138A	Hose, Solution	1
27◆	53619A	3/8 x ¼ NPT Hosebarb	1
NI	839410	Valve Asm. (includes Item #4, 5, 6, 7, 8, 9)	-

NOTE: ◆ indicates a change has been made since the last publication of this manual.

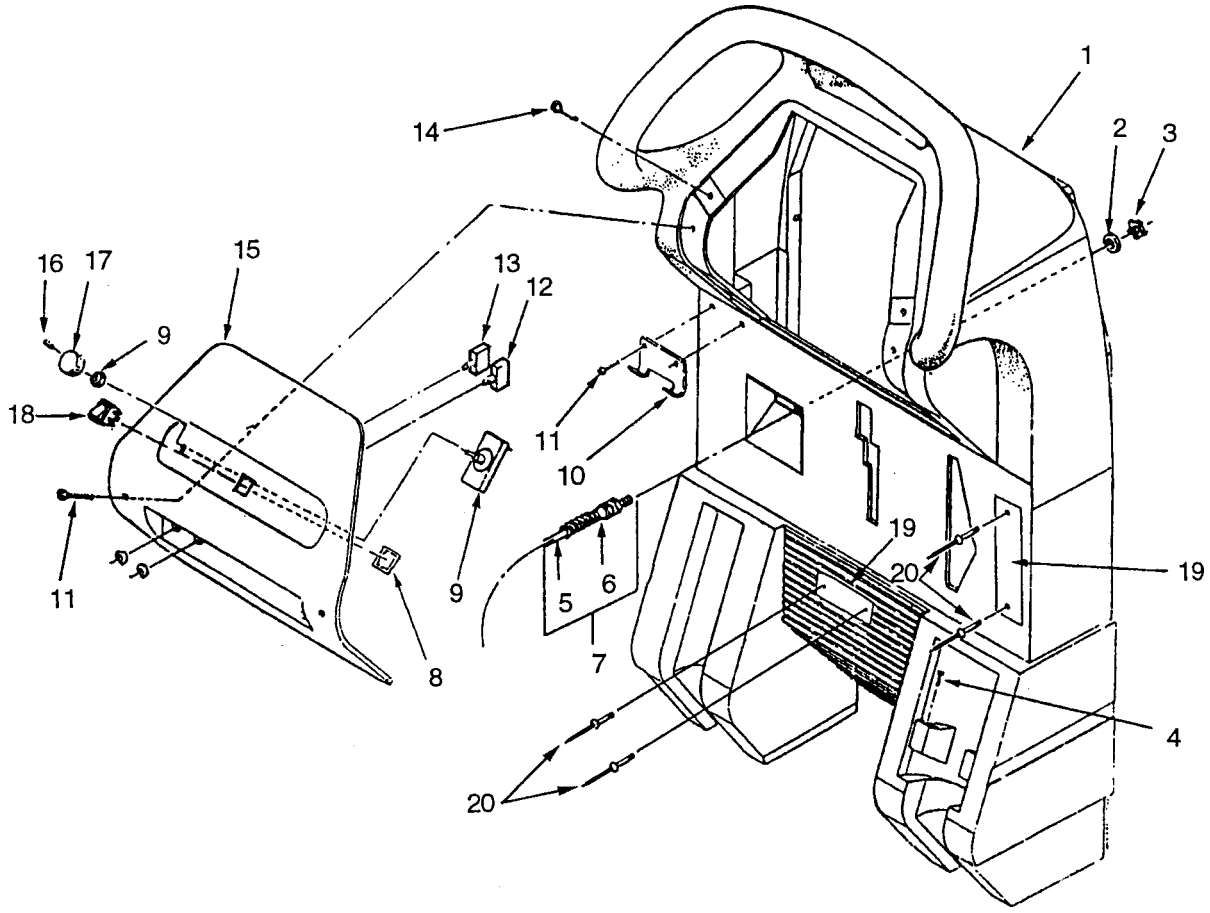
CLARKE TECHNOLOGY
Encore S20E
Rear Panel Assembly Drawing 7/00



CLARKE TECHNOLOGY
Encore S20E
Rear Panel Assembly Parts List 7/00

Ref #	Part No.	Description	115V Qty.	230V Qty.
1	49769A	Harness, Power	1	1
2	920056	Nut, 6-32	10	10
3	912059	Terminal, Block	1	1
4	43604A	Strip, Insulation	1	1
5	68789A	Lift , Brush	1	1
6	64238A	Plate, Wear, Lift, Brush	1	1
7	980603	Washer	4	4
8	962546	Screw, 10-24 x ½	4	4
9	85601A	Screw, 6-32 x 1¼ PN	4	4
10	47374A	Switch	2	2
11	85389A	Screw, 3/8-16 x 5/8	2	2
12	920346	Nut, Pal	1	1
13	64490A	Handle	2	2
14	980666	Washer, Starlock, 3/8	2	2
15	68643A	Plate, Wear, Vac	1	1
16	81104A	Nut, ¼-20	14	14
17	61260A	Squeegee Lift Plate	1	1
18	64901A	Handle, Lift, Squeegee	1	1
19	980692	Washer, Flat, 5/16 SS	4	4
20	438360	Spring	2	2
21	80028A	Bolt, Shoulder, 5/16 x 1.0	2	2
22	64498A	Handle, Lift, Brush	1	1
23	920224	Nut, 10-32 Hex	4	4
24	980603	Washer, Star	4	4
25	53018A	Stain Relief	2	2
26	54606A	Grommet, Slotted, 7.75”	1	1
27	61677A	Cable, Lift, Squeegee	1	1
28	49767A	Cord, Brush/Sol	1	-
	49767B	Cord, Brush/Sol	-	1
29	85383A	Screw, 10-32 x 3/4 Pan	3	3
30	170915	Screw, ¼-20 x 3/4 Hex	4	4
31	980657	Washer, Lock, ¼	4	4
32	85391A	Screw, ¼-20 x 5/8	2	2
33	69858A	Latch, Tank, Recovery	1	1
35	962212	Screw, 6-32 x 7/8	6	6
36	49768A	Cord, Vac/Float	1	1
37	68790A	Panel, Rear	1	1
38	41816A	Contactor	2	2
39	46106A	Rectifier, Bridge	1	1
40	41148A	Convertor, Power	1	-
	41149A	Convertor, Power	-	1
41	85307A	Screw 10-32 x 5/8	4	4
42	85612A	Screw, 10-24 x 3/8	-	2
43	47201A	Suppressor, RF	-	1
44	49788A	Harness, Suppressor	-	1
45	920722	Nut, 10-32 ESNA	1	1
46	81217A	Nut, ¼-20 x .218 Nylock	2	2
47	81110A	Nut, 10-24 Nylock	-	2
NI	47704A	Terminal, FIMOD	-	2
NI	77094A	Label, Ground	1	1

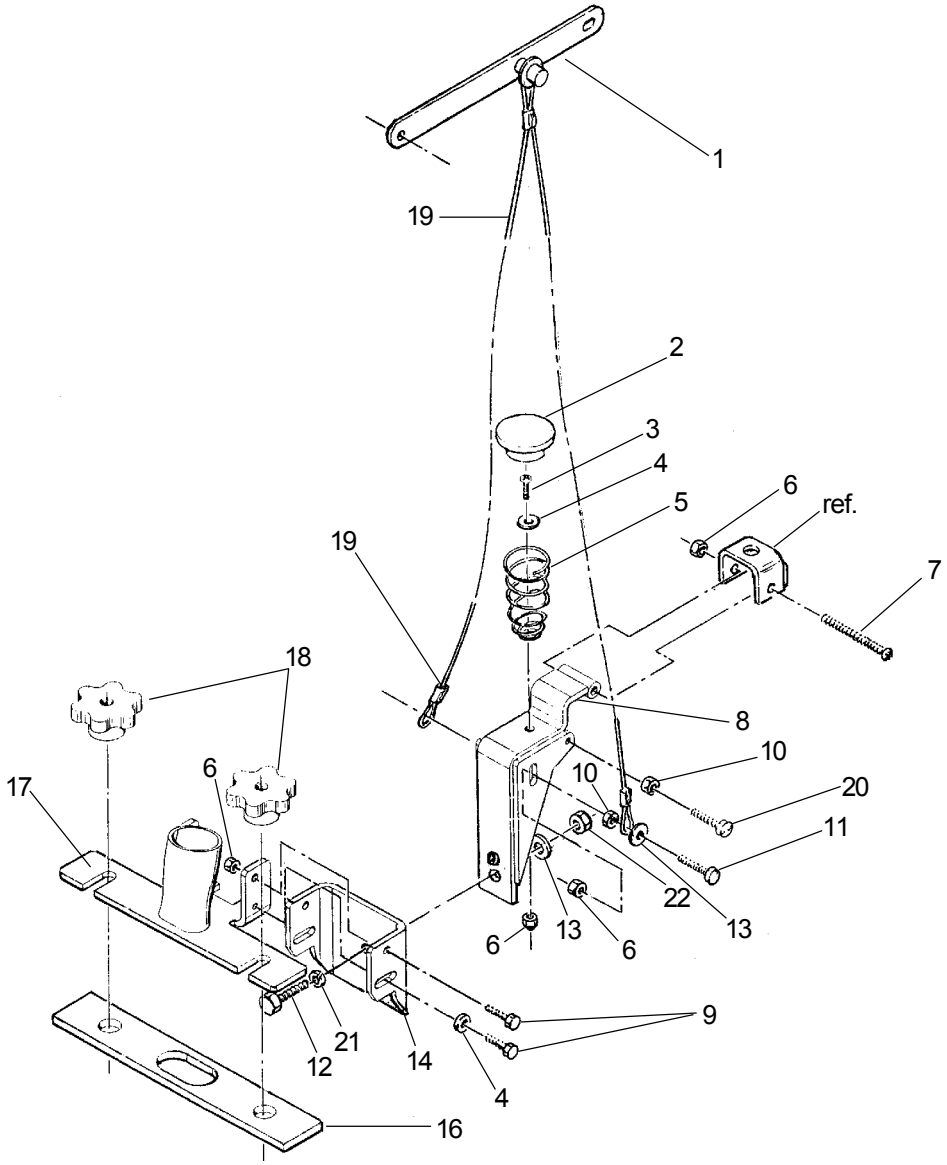
CLARKE TECHNOLOGY
Encore S20E
Electrical Cover Assembly Drawing and Parts List 6/01
Drawing #18118A - 115V
Drawing #18120A - 230V



Ref #	Part No.	Description	115V Qty.	230V Qty.
1	32402B	Cover, Rear	1	1
2	170870	Washer	1	1
3	82100A	Nut, Conduit	1	1
4	962957	Screw	2	2
5	42205B	Cord, Power	1	-
	42232A	Cord, Power	-	1
6	467504	Relief, Strain	1	-
	58013A	Relief, Strain	-	1
7	40003A	Cord, Asm. Power (Includes #'s 5 & 6)	1	-
	42086A	Cord, Asm. Power (Includes #'s 5 & 6)	-	1
8	50766A	Clip, Retainer	1	1
9◆	44308B	Control, Solution Flow	1	1
10	66987A	Hanger, Hose	1	1
11	84237A	Screw	4	4
12	41447A	Breaker, Circuit Transformer 0.5	1	1
13	41418B	Breaker, Circuit Brush 10A	1	-
	41437A	Breaker, Circuit Brush 5A	-	1
14	85518A	Screw, ¼-20 x ¾	2	2
15	32407A	Control Panel	1	1
16	962262	Screw, Set 8-32 (Included with #17)	2	2
17	55502A	Knob	1	1
18	47316B	Switch, Main	1	1
19	70079A	Plate, Warning (with brake)	1	2
	70080A	Plate Warning (without brake)	1	2
20	83010A	Rivet	2	4

NOTE: ◆ indicates a change has been made since the last publication of this manual.

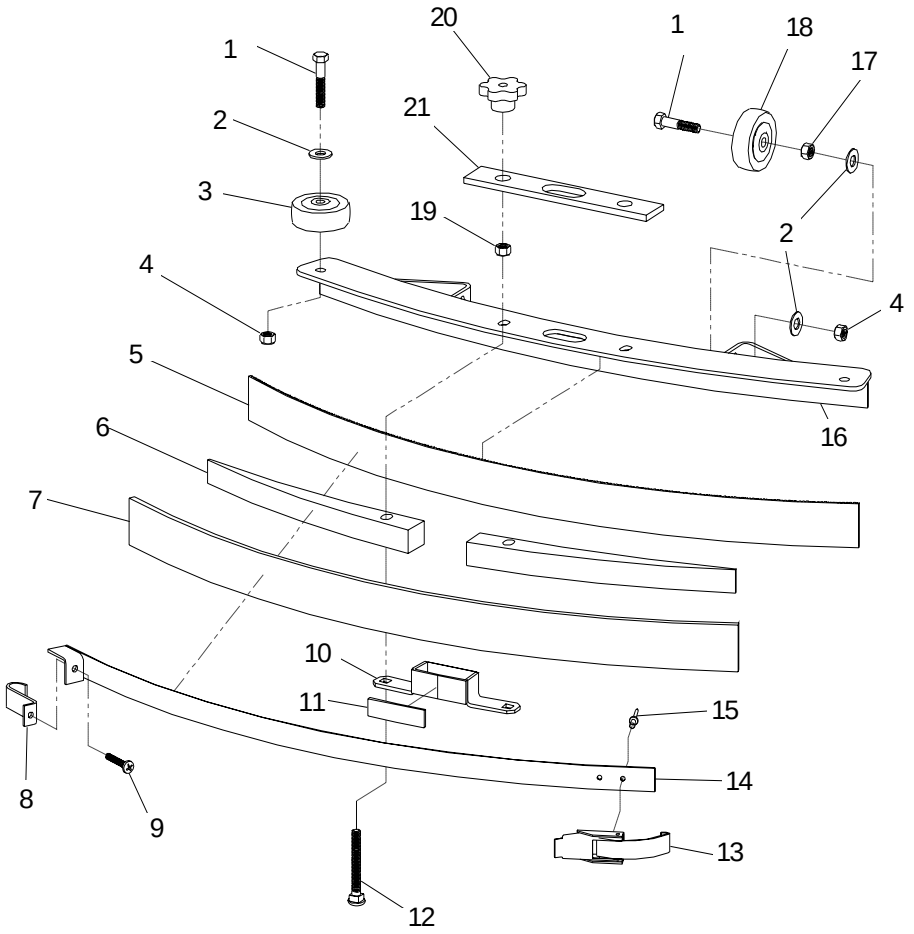
CLARKE TECHNOLOGY
Encore S20E
Squeegee Lift Assembly Drawing and Parts List 6/01
Drawing # 18814A



Ref #	Part No.	Description	Qty.
1	Pg 26, Ref 18	Handle	-
2	30517A	Bushing	1
3	85600A	Screw, ¼-20 x ¾	1
4	87026A	Washer, ¼, SS	3
5	50034A	Spring, Squeegee	1
6	81104A	Nut, Nylock, ¼	6
7	85396A	Screw, ¼-20 x 2 SS	1
8	60225A	Swivel, Squeegee	1
9	170915	Screw, ¼-20 x ¾	4
10	920208	Nut, ¼-20, Plated	4
11	962481	Screw, ¼-20 x 1¼ Hex	2
12	85727A	Screw, ⅜-16, Hex	1
13	87031A	Washer, Flat, ⅜, SS	3
14	69860B	Pin, Bracket	1
16◆	34260B	Gasket, Squeegee	Ref.
17	61263A	Bracket, Tube	1
18◆	25201A	Knob, Clamping	Ref.
19	61677A	Cable, Lift, Squeegee	Ref.
20	86408A	Screw, ¼-20x1 Hex	2
21	980638	Lockwasher	1
22	81111A	Nut	1

NOTE: ◆ indicates a change has been made since the last publication of this manual.

CLARKE TECHNOLOGY
Encore S20E
Squeegee Assembly Drawing and Parts List 7/99
29" Asm. - 18820A (Optional)
33" Asm. - 18821A

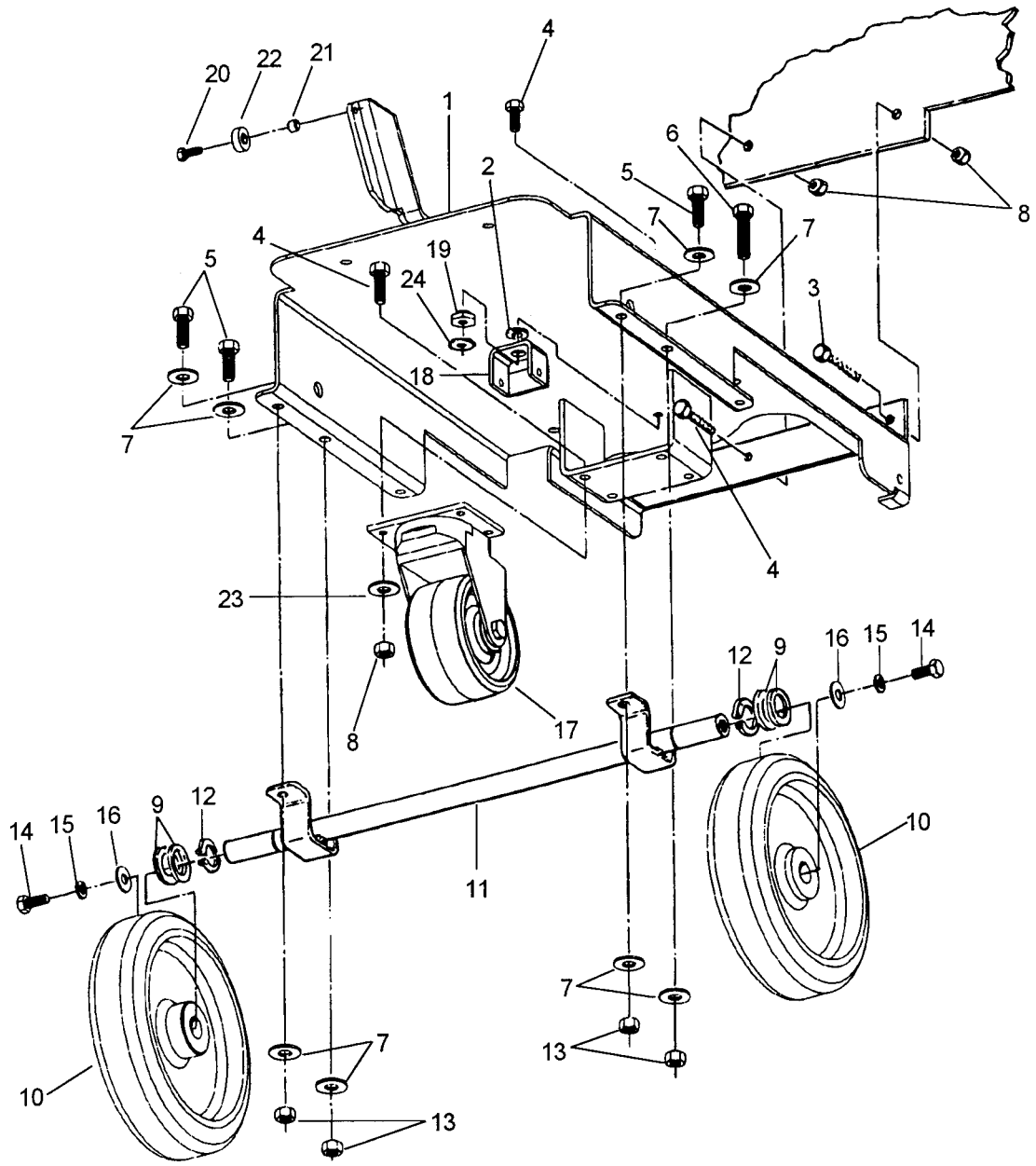


Ref #	Part No.	Description	29"	33"
1	962522	Screw, 3/8-16 x 2" Hex	4	4
2	980687	Washer, 15/32 I.D. x 15/16O.D.	6	6
3	59950A	Wheel, Guide	2	2
4	81111A	Nut, 3/8-16 ESNA	4	4
5	30950A	Blade, Ribbed, Urethane	-	1
	30951A	Blade, Ribbed, Urethane	1	
6	38713A	Spacer, 29"	2	-
	38719A	Spacer, 33"	-	2
7	30931A	Blade, Rubber, Outer	1	-
	30946A	Blade, Rubber, Outer	-	1
8	62421A	Clamp, End	1	1
9	86004A	Screw, ¼-20 x 1½ Hex	1	1
10	62712A	Duct, Squeegee Inlet	1	1
11	37016A	Pad, Squeegee Grip	1	1
12	80011A	Screw, 3/8-16 x 3 CR S.S.	2	2
13	55722A	Latch, Squeegee Strap	1	1
14	62442A	Clamp, Squeegee 29"	1	-
	62445A	Clamp, Squeegee 33"	-	1
15	170932	Rivet, Pop 3.16 S.S. 1/8"	2	2
16	69059A	Squeegee Weldment 29"	1	-
	69672A	Squeegee Weldment 33"	-	1
17	81207A	NUt, 3/8-16 S.S.	2	2
18	419702	Wheel	2	2
19	81301A	Nut, 3/8-16 Jam S. S.	2	2
20	25201A	Knob	2	2
21	34260B	Gasket	1	1

Optional:

NI	30938A	Nitrile 29" Outer Blade
NI	30949A	Nitrile 33" Outer Blade
NI	30930A	Rubber 29" Inner Blade
NI	30947A	Rubber 33" Inner Blade
NI	30955A	Urethane 29" Inner Notched 1/16"
NI	30956A	Urethane 33" Inner Notched 1/16"

CLARKE TECHNOLOGY
Encore S20E
Frame Assembly Drawing and Parts List 7/00
Drawing # 16927A

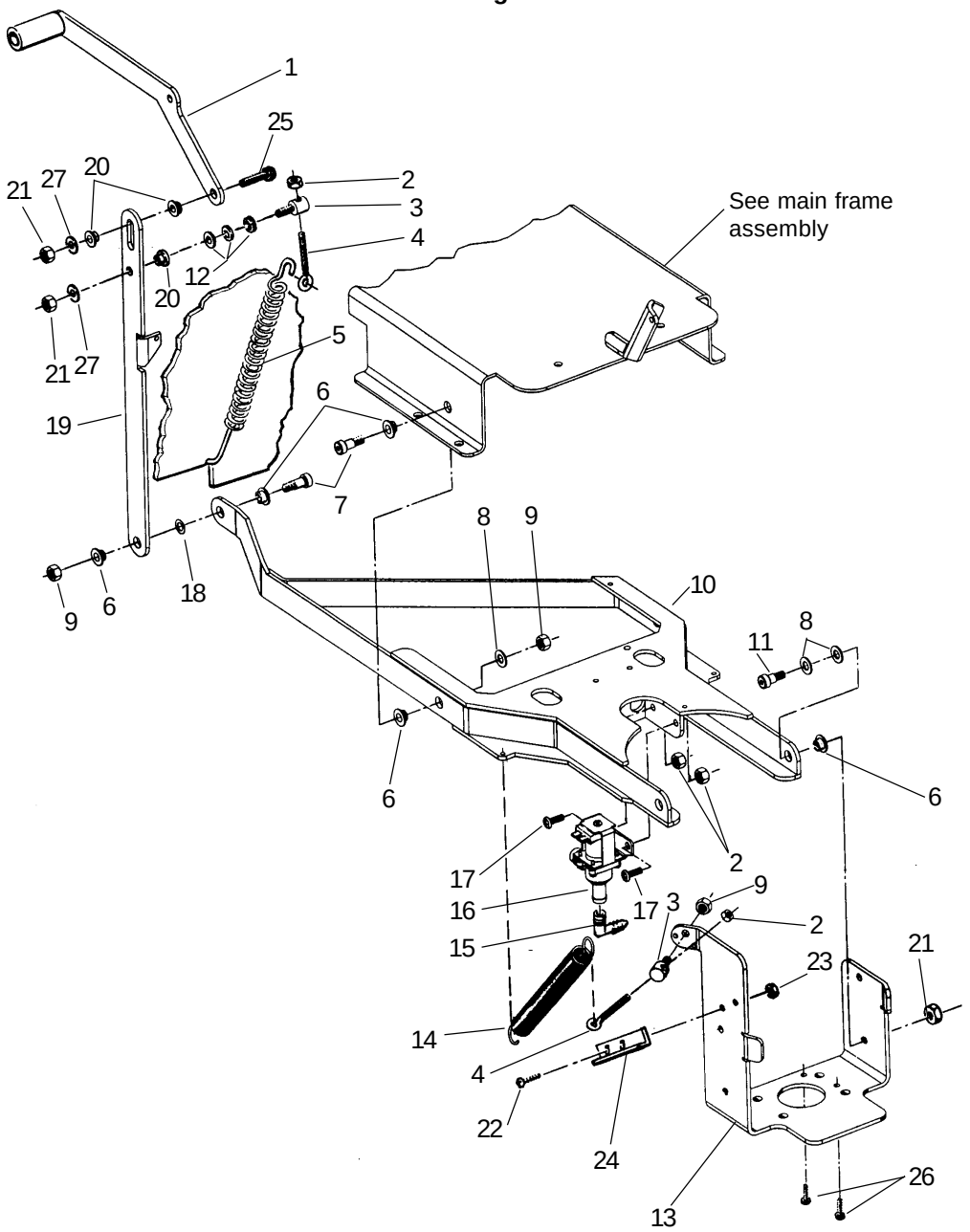


Ref #	Part No.	Description	Qty.
1	63431A	Frame Weldment	1
2	87607A	Washer, Nylon	1
3	85814A	Screw, 5/16 -18 x 1¼	1
4	85811A	Screw, 5/16-18 x 3/4	7
5	85727A	Screw, 3/8-16 x 1	3
6	85836A	Screw, 3/8-16 x 2	1
7	87031A	Washer, Flat, 3/8, SS	8
8	920110	Nut, 5/16-18 ESNA	7
9	87616A	Washer	4
10	69205A	Wheel, Non-Traverse	2
10A	*TBA	Bearings	2
11	60535A	Axle,Non-Traverse	1

Ref #	Part No.	Description	Qty.
12	57423A	Ring, Retainer	2
13	81105A	Nut, 3/8-16 ESNA	4
14	962620	Screw, Hex, 5/16-24 x 3/4	3
15	980652	Washer, Lock, 5/16	2
16	980205	Washer	2
17	61675A	Caster	1
18	61252A	Bracket, Squeegee	1
19	67867A	Nut, Spacer	1
20	85391A	Screw, 1/4-20 x 5/8	1
21	608210	Spacer, Bolt	1
22	51516A	Bushing	1
23	980651	Washer, Flat, Plated, 5/16	4
24	81112A	Nut, 5/16 ESNA Thin SS	1

*TBA = To Be Announced

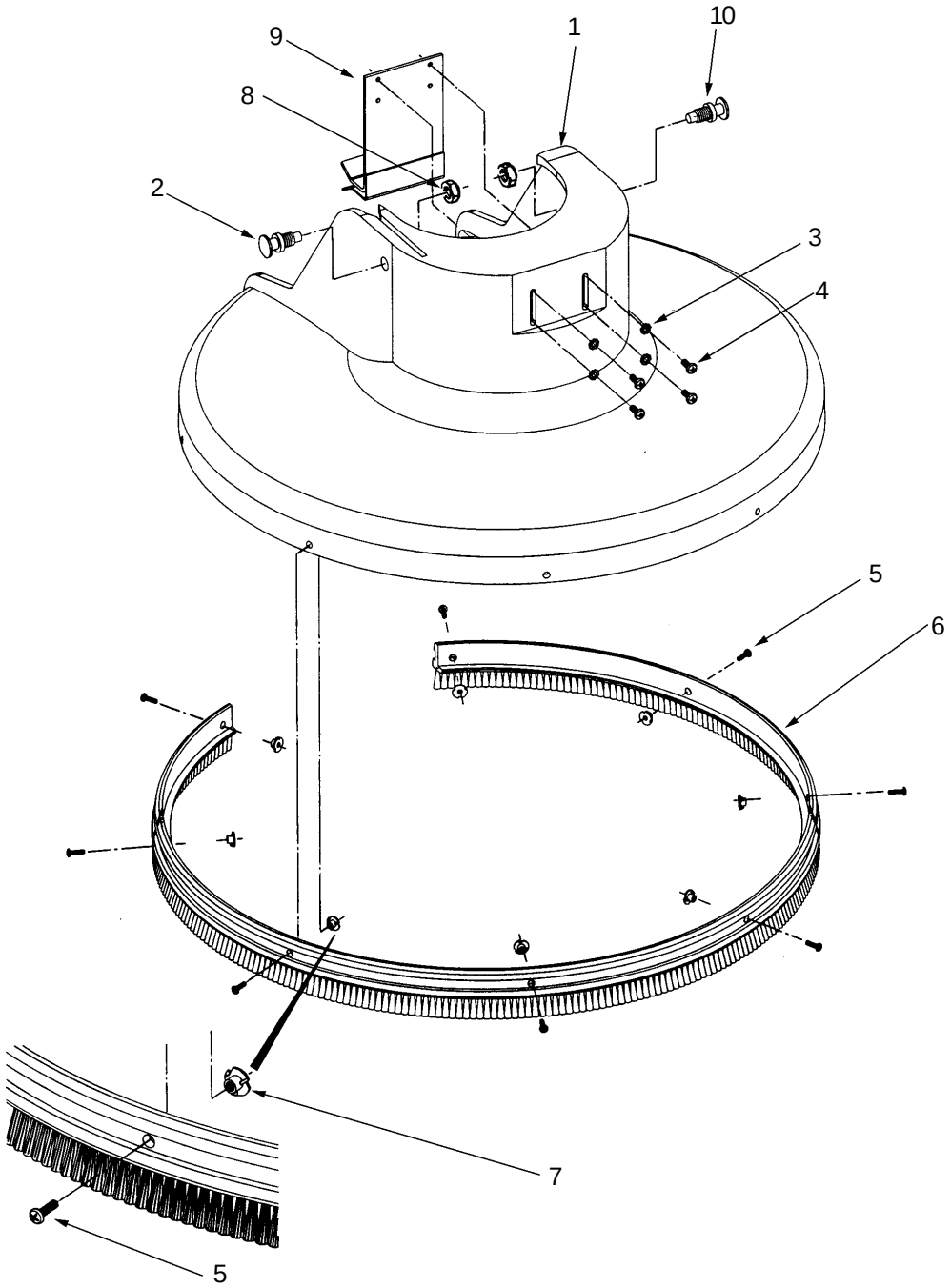
CLARKE TECHNOLOGY
Encore S20E
Brush Lift Assembly Drawing and Parts List 7/00
Drawing #60208A



Ref #	Part No.	Description	Qty.
1	Ref.	Handle, Lift, Brush	-
2	81104A	Nut, ¼-20 ESNA	4
3	848508	Swivel, Rod, Brake	2
4	80042A	Screw, Eye, Adjustment	2
5	50291A	Spring, Pressure	1
6	87620A	Washer, Shoulder,	8
7	80041A	Bolt, Shoulder, 3/8 x ½	3
8	87618A	Washer	6
9	920181	Nut, 5/16, ESNA	4
10	63432A	Frame, Brush Lift	1
11	80040A	Bolt, Shoulder, 3/8 x 3/8	2
12	980651	Washer	3
13	69861A	Bracket, Motor, Brush	1
14	56493A	Spring	1

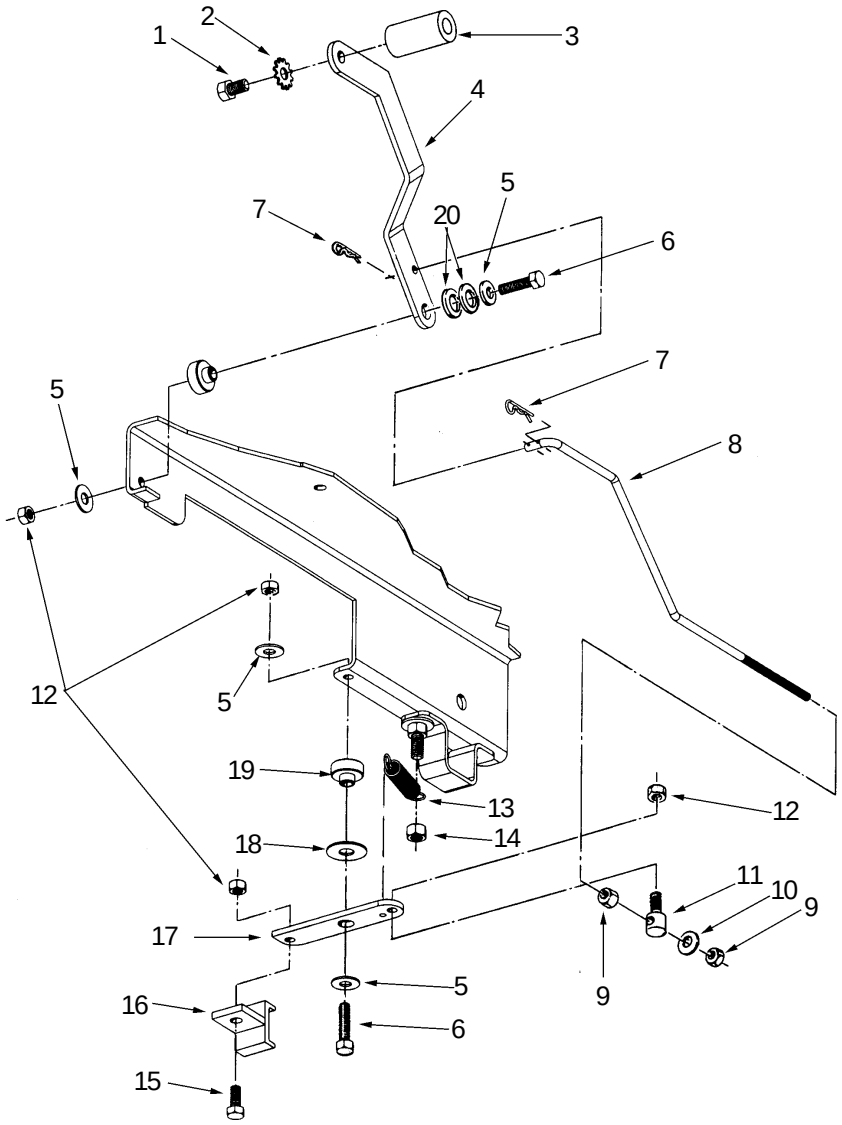
Ref #	Part No.	Description	Qty.
15	53607A	Hosebarb	1
16	59610A	Valve, Solution	Ref
17	85391A	Screw, ¼-20 x	2
18	87619A	Washer, 375032	1
19	60207A	Link, Brush Lift	1
20	87621A	Washer, 3001	3
21	81112A	Nut, 5/16-18 Thin ESNA SS	4
22	962798	Screw 10-24 x ½	2
23	81110A	Nut 10-24	2
24	64239A	Plate, Deflector	1
25	85812A	Screw, 5/16-18 x 7/8	1
26	962554	Screw, ¼-28 x ½	2
27	980692	Washer, 5/16 S.S. Flat	2

CLARKE TECHNOLOGY
Encore S20E
Brush Housing Assembly Drawing and Parts List 7/00
Drawing # 11447A



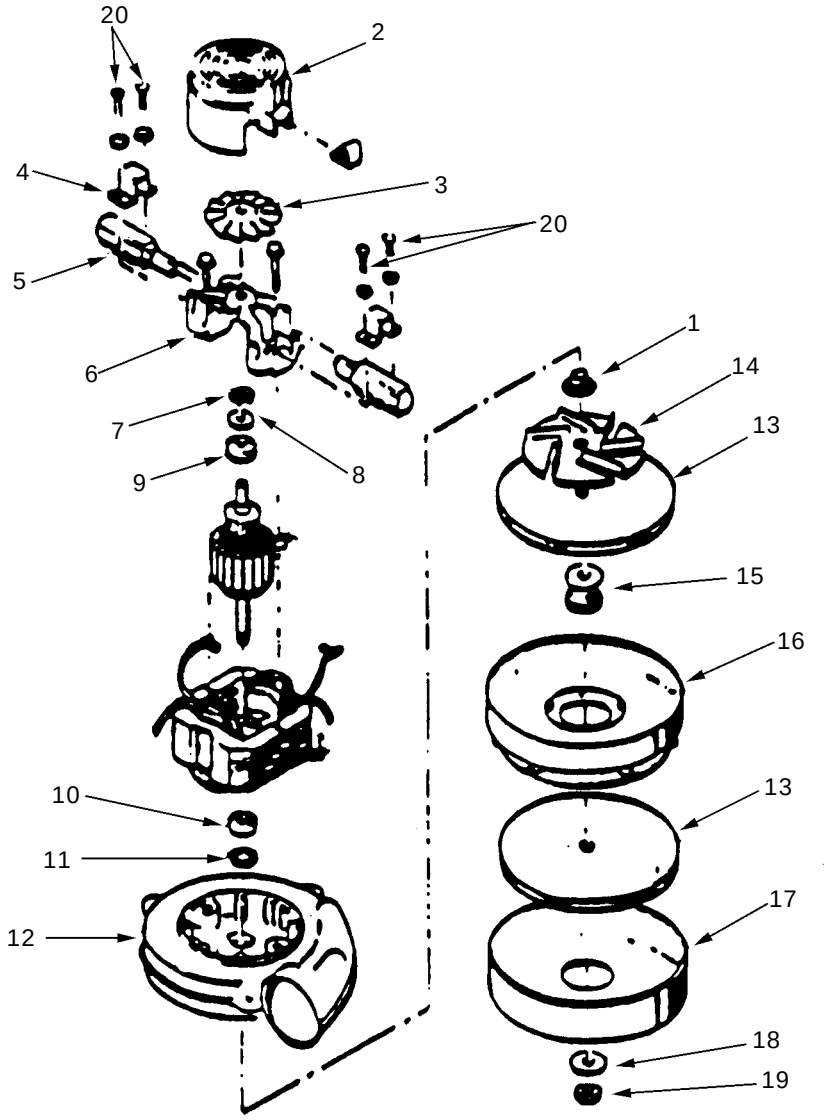
Ref #	Part No.	Description	Qty.
1	35241B	Housing, Brush	1
2	636706	Pin	1
3	980603	Washer	4
4	962798	Screw, 10-24 x ½	4
5	84237A	Screw, 10-32 x ½	8
6	38241A	Skirt, Fibers	1
7	82004A	Nut, 10-32 "T"	8
8	920278	Nut, ½-20 S.S. Jam	2
9	62438A	Bracket, Stop, Housing, Brush	1
10	66550A	Pin	1

CLARKE TECHNOLOGY
Encore S20E
Brake Drawing and Parts List 6/98
PN 10635A



Ref #	Part No.	Description	Qty.
1	85389A	Screw, 3/8-16 x 5/8	1
2	980666	Washer, Starlock, 3/8	1
3	64490A	Handle	1
4	65627A	Brake, Lever	1
5	980651	Washer, Flat, 5/16	4
6	85814A	Screw, 5/16-18 x 1¼	2
7	836711	Clip	2
8	67161A	Rod, Brake	1
9	81104A	Nut, ¼-20 ESNA	2
10	87026A	Washer, Flat, ¼	1
11	848508	Swivel, Rod, Brake	1
12	920110	Nut, 5/16-18 ESNA	4
13	848302	Spring, Arm, Brake	1
14	81105A	Nut, 3/8-16 ESNA	1
15	85811A	Screw, 5/16-18 x 3/4	1
16	66212A	Pad, Brake	1
17	60451A	Bar, Brake	1
18	87607A	Washer, Flat, Nylon, ½	1
19	67877A	Spacer	2
20	980673	Washer	2

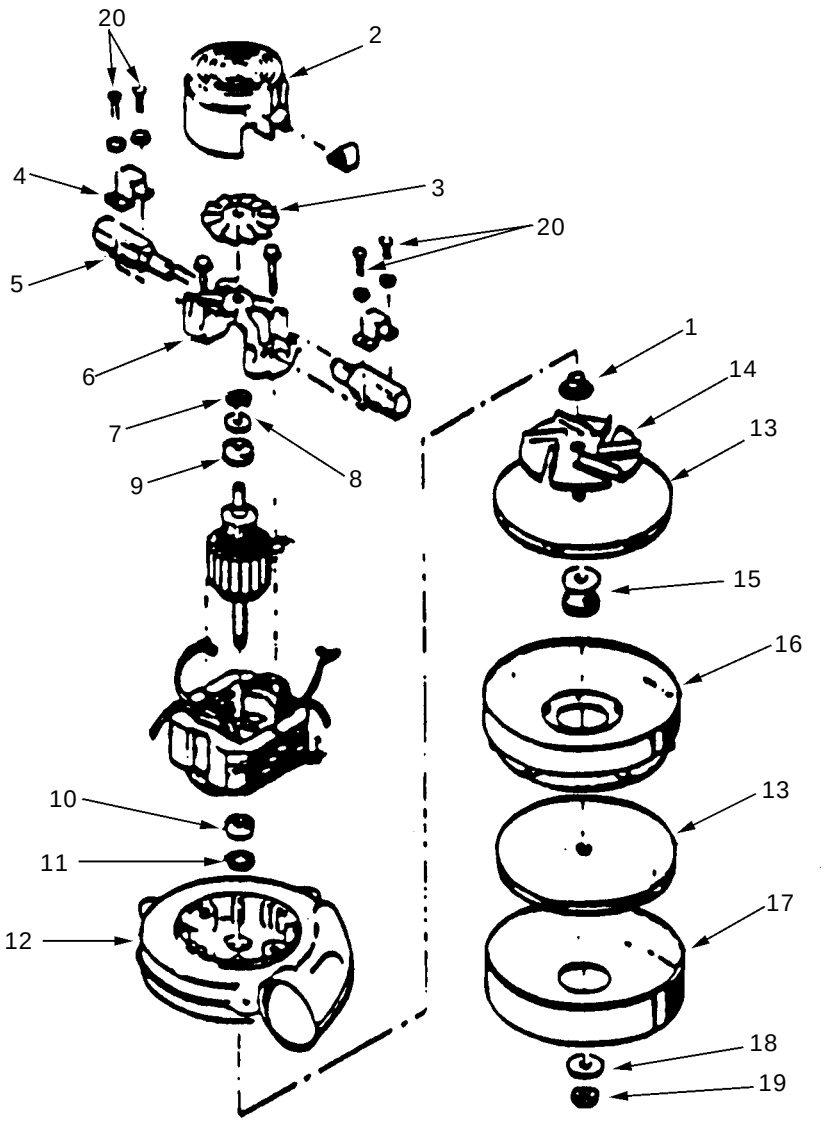
CLARKE TECHNOLOGY
Encore S20E
115V Vacuum Motor
Drawing and Parts List 9/97
Form # 44906A



Ref #	Part No.	Description	Qty
1	58501A	Spacer	1
2	54809A	Housing-Vent	1
3	53905A	Fan	1
4	51914A	Clamp	2
5	51419A	Carbon Brushes 115V	2
6	50618A	Commutator End Bracket	1
7	638313	Load Spring	1
8	53100A	Disc	1
9	902679	Ball Bearing	1
10	902648	Ball Bearing	1

Ref #	Part No.	Description	Qty
11	59803A	Neoprene Washer	1
12	50610A	Fan End Bracket	1
13	53914A	Vacuum Fan	2
14	53906A	Fan	1
15	658201	Spacer	1
16	53908A	Stationary Fan	1
17	57904A	Fan Shell	1
18	980205	Washer	1
19	920329	Nut	1
20	85303A	Screw, $^{3}/_{8}$-32	4

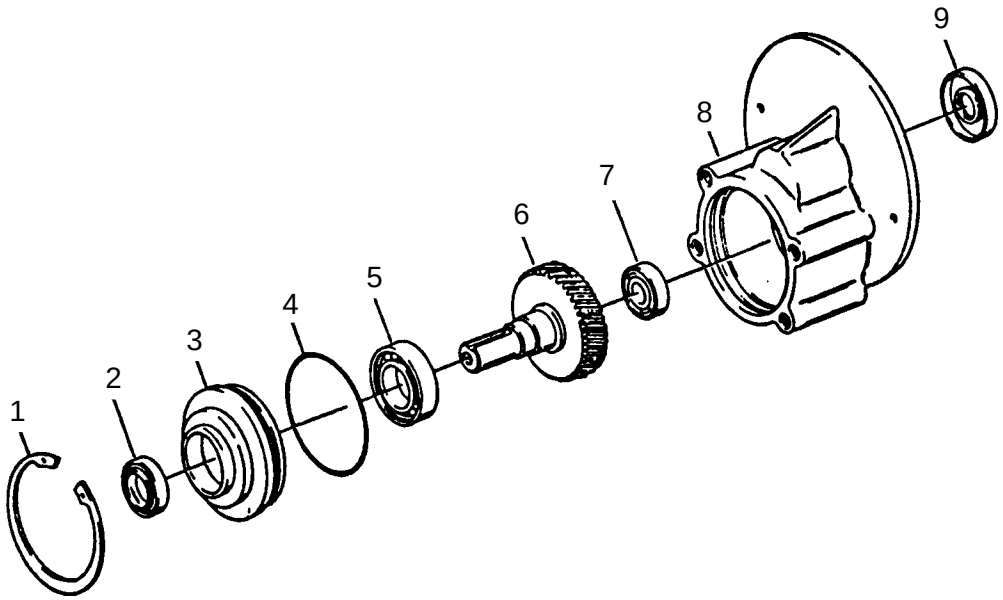
CLARKE TECHNOLOGY
Encore S20E
230V Vacuum Motor
Drawing and Parts List 9/97
Form # 44907A



Ref #	Part No.	Description	Qty
1	58501A	Spacer	1
2	54809A	Housing-Vent	1
3	53905A	Fan	1
4	51914A	Clamp	2
5	51401A	Carbon Brushes 230V	2
6	50618A	Commutator End Bracket	1
7	638313	Load Spring	1
8	53100A	Disc	1
9	902679	Ball Bearing	1
10	902648	Ball Bearing	1

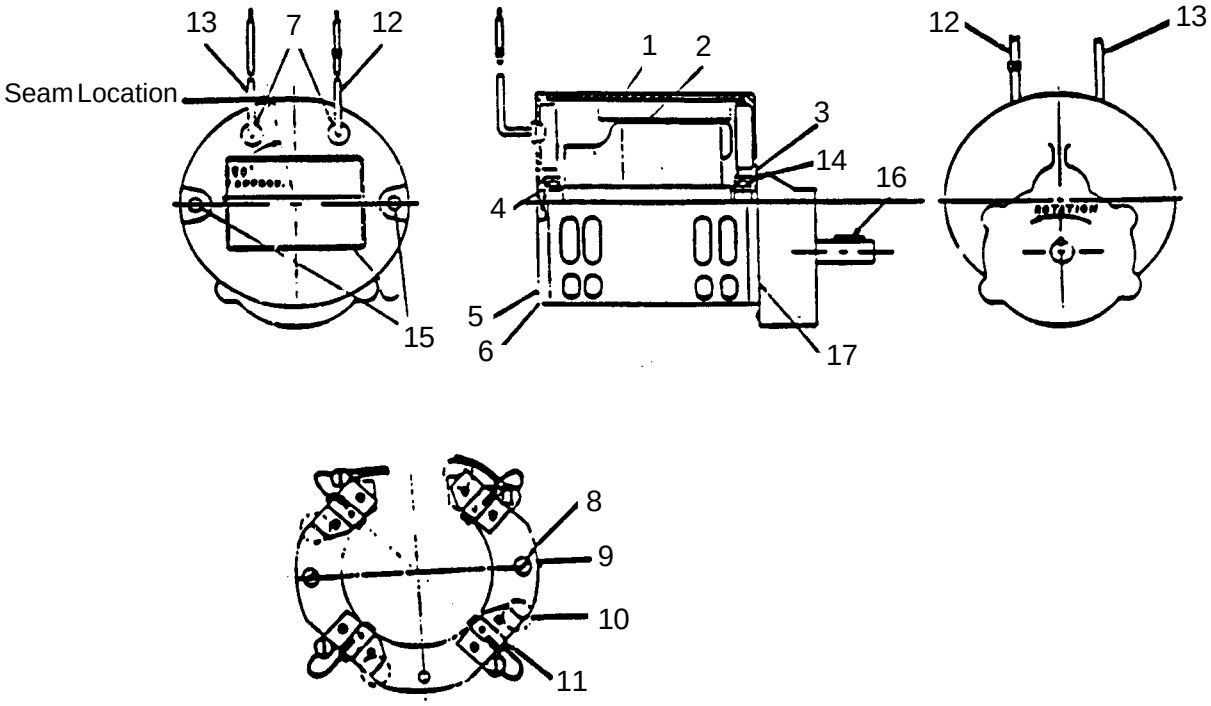
Ref #	Part No.	Description	Qty
11	59803A	Neoprene Washer	1
12	50610A	Fan End Bracket	1
13	53914A	Vacuum Fan	2
14	53906A	Fan	1
15	658201	Spacer	1
16	53908A	Stationary Fan	1
17	57904A	Fan Shell	1
18	980205	Washer	1
19	920329	Nut	1
20	85303A	Screw, $^{3}/_{8}$-32	4

CLARKE TECHNOLOGY
Encore S20E
Gearbox Assembly Drawing and Parts List 9/97
Form #54238A



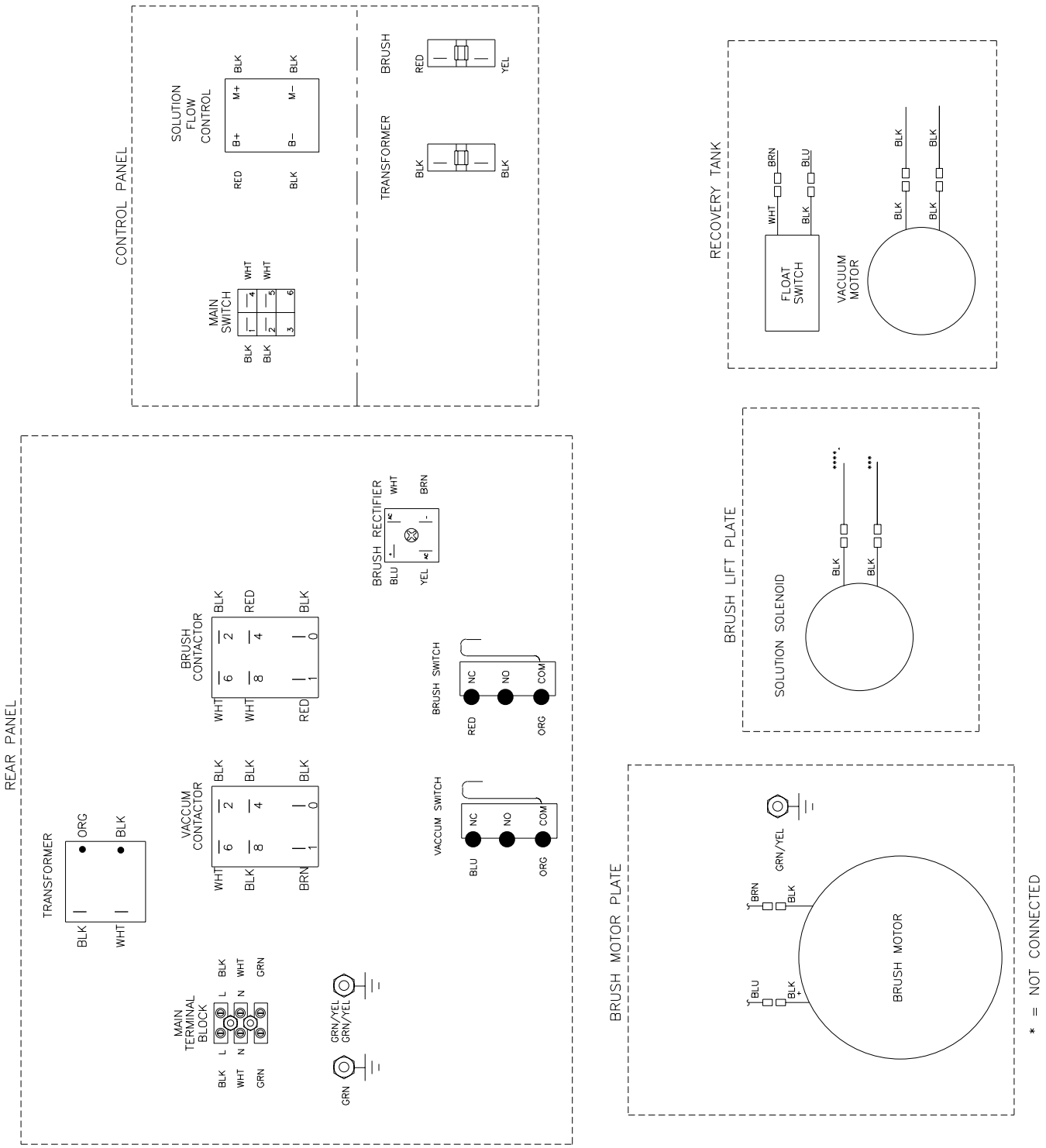
Ref #	Part No.	Description	Qty
1	57846A	Ring, Snap	1
2	58143A	Seal, Oil, Small	1
3	52050A	Cap End	1
4	56668A	O-Ring	1
5	51176a	Bearing, Large	1
6	58316A	Shaft & Gear	1
7	902605	Bearing, Small	1
8	54883A	Housing	1
9	58144A	Seal, Oil Large	1
10	NI	Darina EP2 Grease	4 oz.

CLARKE TECHNOLOGY
Encore S20E
Motor and Gearbox Assembly
Drawing and Parts List 7/00
Form # 44713A-115V
Form # 44711A-230V
Form 44711B-230V

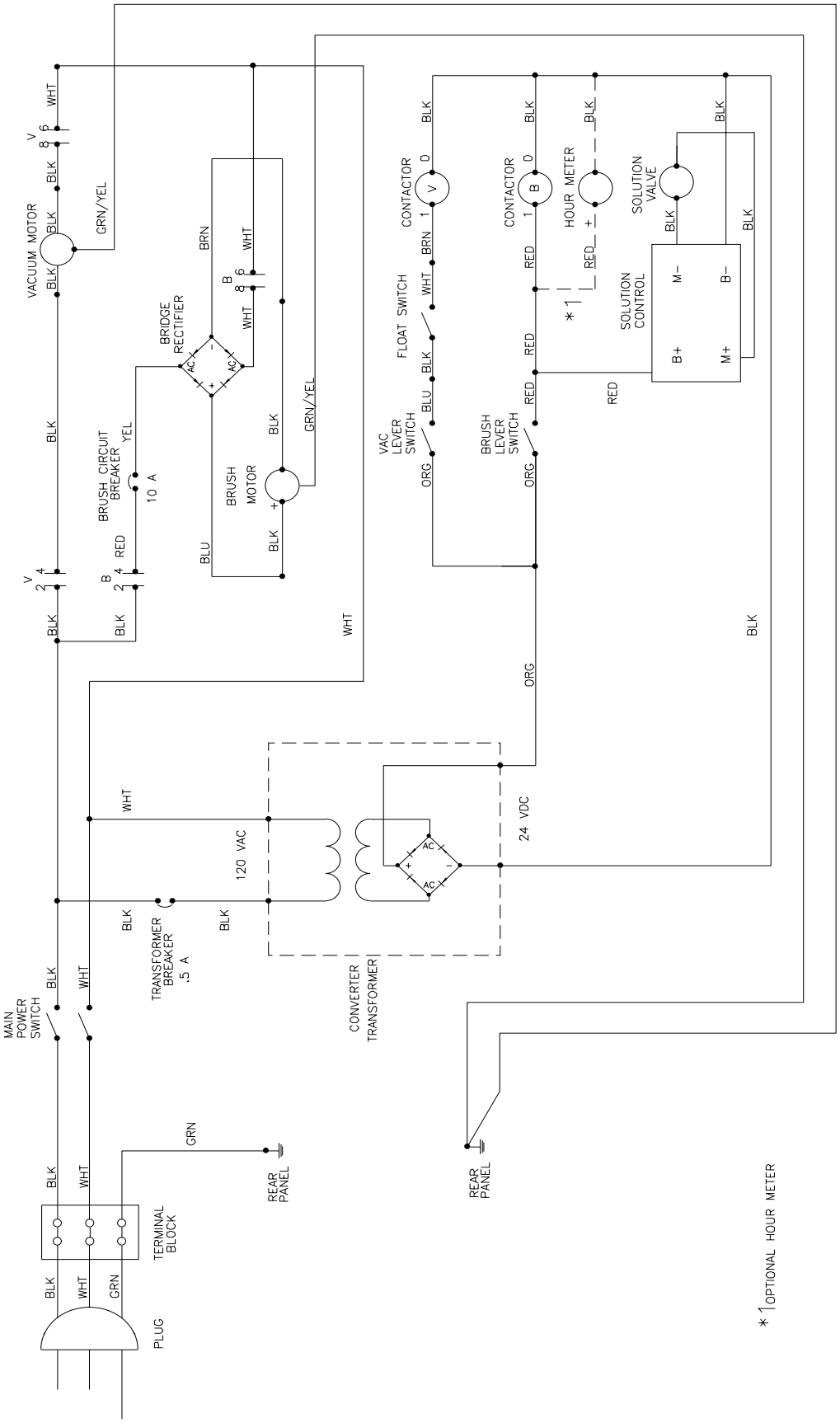


Item	Part No.	Description	115v Qty	230v Qty.
1	56477A	Stator Frame Assembly (w/Magnets & Clips)	1	1
2	50141A	Armature Assembly (w/ B.E. & F.E. Bearings)	1	-
	50140A	Armature Assembly (w/B.E. & F.E. Bearings)	-	1
3	902654	Bearings B.E.	1	1
4	902550	Bearing F.E.	1	1
5	51839A	Commutator Bracket Assembly (w/Brush BRD Assembly Leads)	1	-
	51837A	Commutator Bracket Assembly (w/Brush BRD Assembly Leads)	-	1
6	50520A	Commutator Bracket	1	1
7	56480A	Strain Relief	1	1
8	962546	Brush Board Screw	2	2
9	50518A	Brush Board Assembly (w/ Springs & Brushes)	1	-
	50519A	Brush Board Assembly (w/Springs & Brushers)	-	1
10	448396	Brush Spring	4	4
11	50516A	Brush Assembly	4	-
	40819A	Brush Assembly	-	4
12	55654A	Lead Assembly	1	-
	55654A	Lead Assembly	-	1
13	55655A	Lead Assembly	1	1
14	59805A	Helical Washer	1	1
15	50515A	Thru Bolt	1	1
16	80501A	Shaft Key	2	2
17	54238A	B.E. Bracket Assembly (Gear Box)	1	1

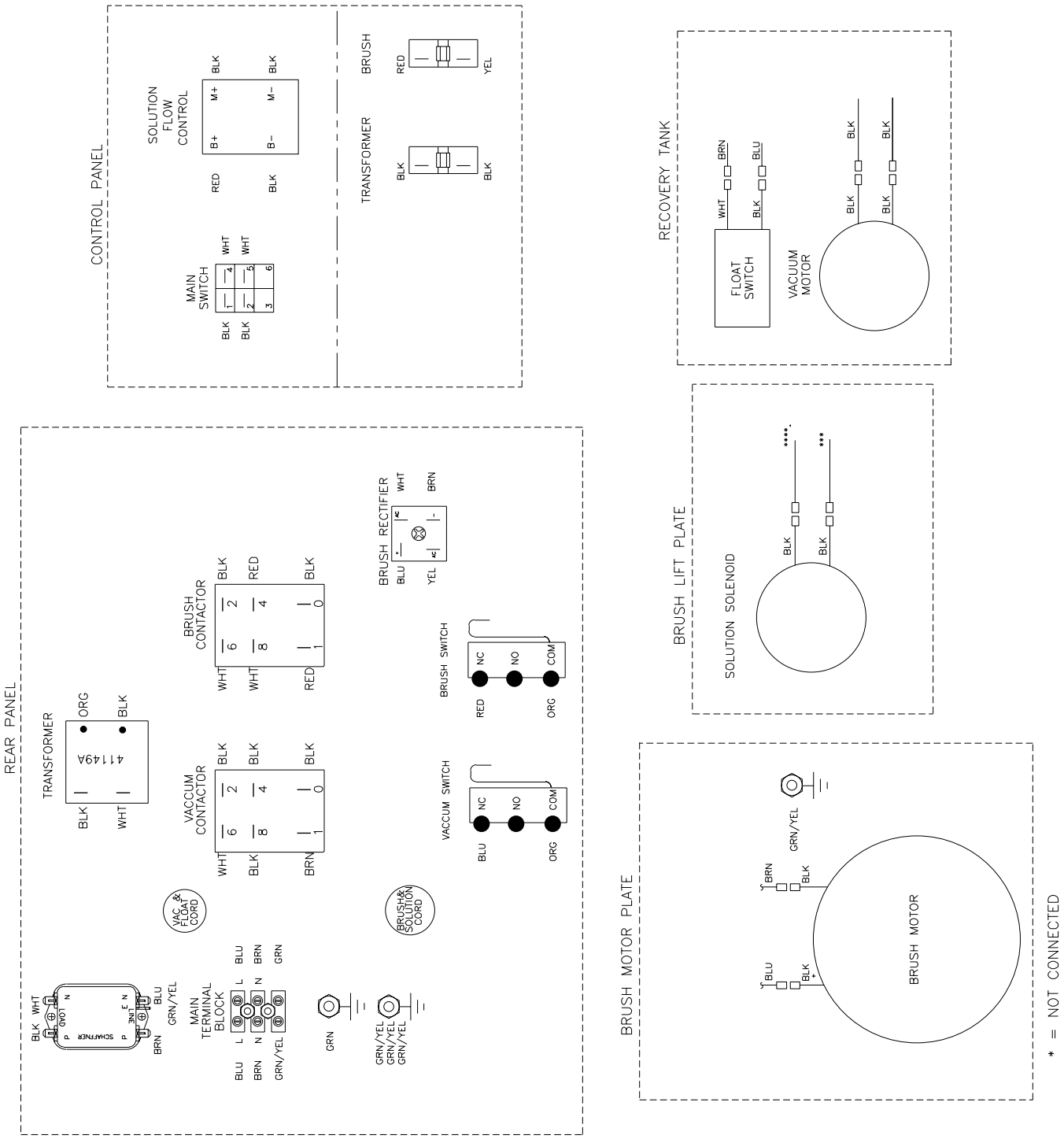
CLARKE TECHNOLOGY
Encore S20E 115V
Connection Diagram (00900A-W) 2/99



CLARKE TECHNOLOGY
Encore S20E 115V
Electrical Schematic (00900A-E) 2/99



CLARKE TECHNOLOGY
Encore S20E 230V
Connection Diagram (00910A - W) 2/99



CLARKE TECHNOLOGY
Encore S20E 230v
Electrical Schematic (00910A-E) 2/99